ASX Announcement/Press Release
Zenith Minerals Limited (ASX:ZNC)
25th October 2024

WA Government EIS Co-fund Grant Awarded for

Waratah Well Lithium Project

Zenith Minerals Limited ("Zenith" or the "Company", ASX: ZNC) is pleased to announce that it has been successful in securing a Western Australian Government Exploration Incentive Scheme ("EIS") grant (round 30), co-funding exploration drilling at the Company's Waratah Well Lithium Project, located 20km northwest of Yalgoo, Western Australia.

Highlights

- Zenith was awarded **AUD $85,000** as part of the EIS grant program, which will fund up to **50%** of the direct drilling costs for the upcoming exploration program.
- The drilling program is required to be completed by 30 November 2025.
- Recent rock chip sampling, including 123 samples, has confirmed and improved lithological contacts within the area; observations indicate that key lithological contacts control the location and orientation of mineralisation.
- Zenith holds an approved Programme of Works (POW) and has completed heritage surveys, with a drill program pending Board approval.

This successful EIS grant is a significant development for Zenith as it supports further exploration at the **100% owned Waratah Well Lithium Project**. The project has already demonstrated **high-grade lithium potential** in an underexplored region for lithium-bearing pegmatites. Previous drilling programs confirmed the presence of **petalite**, a valuable lithium mineral, within a large pegmatite system. Petalite, which has been reported in a number of lithium deposits across Western Australia, is a major economic driver for global lithium projects such as **Arcadia in Zimbabwe**[1] currently in production. It also occurs at the **Kathleen Valley**[2] and **Mount Holland deposits**[3] in Western Australia.

With 50% of the drilling phase co-funded by the EIS grant (capped 85k), Zenith will focus on defining the scale and economic potential of lithium mineralisation in both untested and ineffectually tested zones. The upcoming program targets lithium-bearing pegmatites within a broad mineralised corridor, aiming to extend known mineralisation into previously untested areas, under cover to the north-east, and confirm the depth continuity of petalite-dominant zones.

The last exploration program in 2022, yielded the following intercept (ASX Release 24 Jan 2023):

- **14m @ 1.0% Li_2O**, including **8m @ 1.5% Li_2O**.
- **10m @ 1.4% Li_2O**, including **6m @ 2.0% Li_2O**.
- **27m @ 0.8% Li_2O** (true width **10m**), including **12m @ 1.2% Li_2O** (true width 6m)

[1] ASX: PSC Announcement 4th OCT 2021 Prospect delivers bulk technical grade petalite shipment
[2] ASX: LTR Announcement 9th June 2020 Updated PFS criteria
[3] Covalent Lithium Earl Grey Lithium Project Environmental Review Document Assessment 2123

Andrew Smith, Managing Director of Zenith Minerals, commented:

"While our core focus remains on advancing our gold projects, we have not lost sight of the significant potential within our lithium portfolio. The successful EIS co-funding for Waratah Well is a testament to the project's potential and the Western Australian Government's commitment to promoting lithium exploration and extraction. This lithium project continues to deliver exciting results, and we are confident it will create substantial value alongside our gold assets. Waratah Well is an important part of our broader strategy, and we look forward to unlocking its full potential as we continue to drive both our gold and lithium projects forward."

Project Location and Geological Overview:

The **Waratah Well Lithium Project** is situated approximately **20km northwest of Yalgoo**, spanning tenements **E59/2170 and E59/2321**, within the Murchison Domain of the Youanmi Terrane, part of the western Yilgarn Craton. This region, known for its Archean greenstone belts and granitoid intrusions, has a history of productive gold and base metal deposits. Recently, attention has shifted towards lithium-caesium-tantalum (**LCT**) pegmatites, which are crucial targets for battery metals exploration.

At Waratah Well, tantalum and locally lithium-bearing pegmatite sills and dykes crop out over a 3km x 2km area, with a range of dips from 60° to flat lying, and thicknesses from 0.5m to 21m – refer to ZNC ASX Releases: 27-Apr-18, 30-Apr-20 and 3-Nov21.

The primary **geological target** at Waratah Well consists **of LCT pegmatite dykes** intersecting mafic to ultramafic lithologies, which display favourable characteristics for lithium mineralisation, including:

- **Shallow-dipping pegmatite structures**, providing an ideal configuration for broad, accessible zones of mineralisation.
- **Rock chip samples** returning up to **2.09% Li_2O** .
- **Strong lithium content** identified in drilling (e.g. 14m @ 1.0% Li2O, incl 8m @ 1.5% Li2O –ZNC ASX 24-Jan23).

Pegmatite Composition and Mineralisation:

Recent exploration has confirmed that the pegmatites at Waratah Well are lithium-tantalum-rich, and their mineral composition is dominated by **petalite**, a high-grade lithium-bearing mineral. **X-ray diffraction (XRD) analysis** has confirmed that up to **84% of the lithium mineralisation** in the project area is hosted by petalite, making it the key lithium mineral at Waratah Well. Petalite is particularly valuable due to its importance in **glass and ceramic production**, in addition to its use in the burgeoning lithium-ion battery industry.

Spodumene, a more commonly mined lithium-bearing mineral, has also been suggested in geological models, though further drilling under areas of cover and at depth is required to confirm its presence. Geological models indicates that spodumene may occur adjacent to the know petalite mineralisation else at greater depths, potentially adding to the project's economic significance. This prospect makes Waratah Well one of the most unique lithium projects in Western Australia, given the dominance of petalite.

Geochemical Characteristics:

In addition to lithium, the pegmatites at Waratah Well are enriched in other critical minerals, such as **tantalum, caesium** and **rubidium**, all of which are in high demand due to their roles in advanced technologies and electronics. Early geochemical surveys and drilling have shown promising levels of tantalum mineralisation, with assays returning up to **970ppm Ta**. These additional metals could potentially enhance the project's overall economic feasibility and make Waratah Well a multi-commodity asset.

History of Exploration:

Exploration at Waratah Well has evolved significantly since Zenith Minerals began work on the project, with major advancements made in the past two years.

- **Pre-Zenith Exploration (1985–2015)**:

  Historical work in the region largely focused on gold, copper, and uranium exploration. The **St Joe Australia** (1985) and **Paladin Resources** (1996) programs identified anomalies in arsenic and copper, but none of the earlier explorers targeted lithium pegmatites. The potential for lithium mineralisation remained largely unnoticed until Zenith Minerals acquired the tenement.

- **Zenith Exploration (2016–2022)**:

  Zenith Minerals initiated work on the Waratah Well project in 2016, confirming the presence of **lithium-bearing pegmatites** through surface sampling and geophysical surveys. Initial rock chip assays returned lithium grades of up to **1.75% Li_2O** and tantalum values as high as **970ppm**. By 2018, Zenith had completed mapping of high-density pegmatite areas and developed a geological model for the deposit.

- **2022 Drilling Program**:
  Zenith conducted a **three-phase RC drilling campaign** throughout 2022, targeting pegmatites at Waratah Well:

  - **Early 2022**:
    Zenith completed 8 RC drill holes, confirming the presence of lithium-bearing pegmatites over a **3km x 2km** area. This early phase focused on defining the extent of surface pegmatite outcrops.
  - **Mid-2022**:
    Zenith drilled **47 RC holes** across a 1.4km x 1.2km area. This phase targeted pegmatites buried under a thin layer of sedimentary cover. Notably, **22 of the 47 holes** intersected pegmatites, with some zones up to **24m thick**. Geochemical analysis confirmed the presence of lithium-rich pegmatites, with results including up to **1.31% Li_2O** in **ZWWRC029**.[4]
  - **Late 2022**:
    The final phase of the 2022 campaign included **13 RC holes** drilled to a greater depth to test for high-grade lithium mineralisation. This phase was highly successful, with drill results showing intersections of up to **1.5% Li_2O**. Laboratory analysis confirmed that the mineralisation consisted predominantly of **petalite**, a rare lithium mineral not

[4] ASX Release 10-Mar-22

widely reported in Western Australia but seen in major global deposits. These findings strongly support the theory that significant lithium-bearing pegmatites are present below the weathered zone, see Figure 1 and Figure 2.

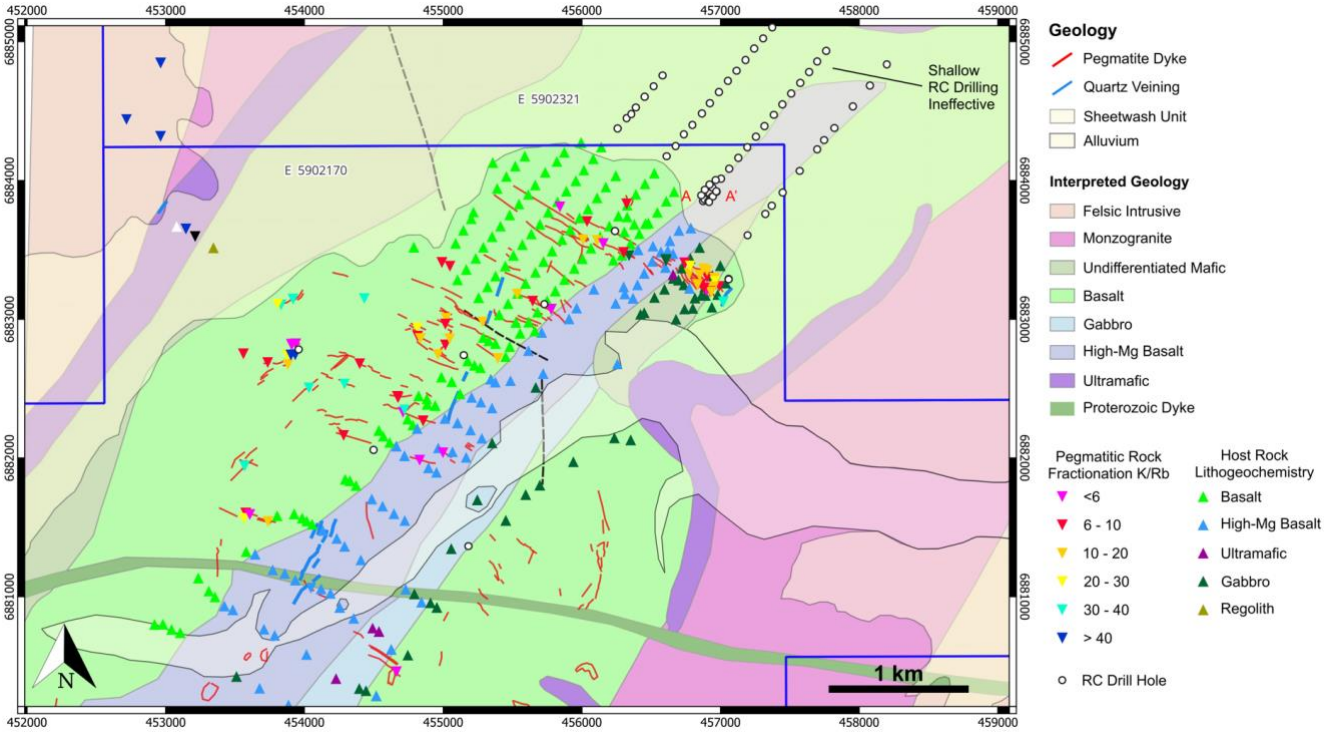

Figure 1: Waratah Well Lithium Prospect Area - Lithium Drilling Results and Location of Cross Section A-A'

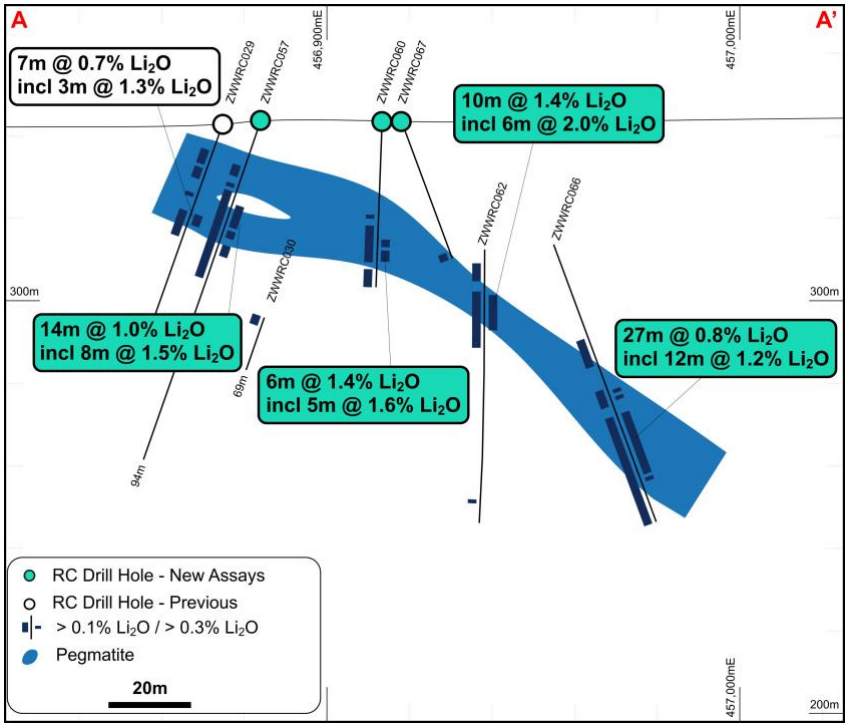

Figure 2: Waratah Well Lithium Prospect Drilling Cross Section A-A'

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About Zenith Minerals

Zenith Minerals Limited (ASX: ZNC) is an Australian-based exploration company with a focus on both gold and lithium, offering a diverse portfolio of projects in highly prospective regions of **Western Australia** and **Queensland**. The company is strategically positioned to benefit from the global demand for precious metals and battery minerals, with an emphasis on advancing its high-potential gold and lithium assets.

Gold Projects

Red Mountain (Queensland):

The **Red Mountain Gold Project**, located in Queensland, is a cornerstone of Zenith's gold exploration strategy. Red Mountain is situated within a prolific mineral belt and has returned **exceptional high-grade gold results** through multiple phases of drilling. The recent third phase of drilling, guided by a refined **3D geological model**, continues to demonstrate the project's significant potential.

Key results from the previous drilling (ZNC ASX: 29-Aug23):

- **118m @ 0.54g/t Au**, including **12m @ 1.36g/t Au**.
- **13m @ 8.0g/t Au** including **6m @ 16.7g/t Au** from surface.

Dulcie Far North (Western Australia):

The **Dulcie Far North (DFN)** project is located within the **Split Rocks** gold corridor in Western Australia and has delivered some of the company's **best gold intercepts** to date. Situated in the **Southern Cross/Forrestania Greenstone Belt**, an area known for its significant gold endowment, Dulcie Far North is a key part of Zenith's gold exploration efforts.

Recent drilling at Dulcie Far North has returned high-grade results, including:

- **12m @ 6.1g/t Au**.
- **3m @ 10.7g/t Au**.

The project also benefits from its proximity to existing gold processing infrastructure, located only **35km** north of the deposit, making it an attractive near-term development opportunity. Further exploration at DFN will focus on testing the mineralisation extensions and increasing the project's resource potential.

Lithium Projects

Split Rocks Lithium Project

- Split Rocks Lithium Project (covering ~376km²) is located in the Forrestania greenstone belt 30km north of the established Mt Holland Lithium Deposit (Covalent Lithium).
- Maiden Inferred Mineral Resource for the Rio Lithium Pegmatite Deposit at Split Rocks of **11.9Mt at 0.72% Li2O** (ASX Release 28-Sep-23).
- 83 advanced lithium targets identified in December 2023.
- **Split Rocks is 1 of only 6 lithium deposits with a JORC mineral resource in Western Australia, outside existing lithium mining operations.**

Waratah Well Lithium Project

- **Waratah Well Project** (covering ~123km2) located approximately 20km northwest of the regional town of Yalgoo in the Murchison Region holds an advanced lithium exploration target.
- Multiple drill intersections at Waratah Well >10m @ 1.0%Li2O (ASX Release 24-Jan-23).
- Permits are in place to commence a drilling program to further test these targets, which remain open in all directions.

In addition to these assets, Zenith retains a 25% free carried interest (to end bankable feasibility study) on the Earaheedy Zinc discovery, in Western Australia, with Rumble Resources Limited (ASX: RTR).

To learn more, please visit www.zenithminerals.com.au

This ASX announcement has been authorised by the Board of Zenith Minerals Limited.

Competent Persons Statement

The information in this report that relates to exploration results, Mineral Resources and exploration activities is based on information compiled by Mr Christopher Shanley, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Shanley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Shanley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX Releases Previously Released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

Appendix 1: Waratah Well Lithium Drilling - JORC Table 1

Section 1 Sampling Techniques and Data

Criteria in this section apply to all succeeding sections.

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	Drilling descriptions below refer to previously announced drilling programmes. 1m reverse circulation drill samples were collected at depths ranging from 0 to 196m depth. Samples were collected via a cyclone.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples are considered to be representative of the intervals sampled.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Slimline Reverse circulation drilling was used to obtain 1m samples from which 2 kg was pulverised with analysis for lithium by sodium peroxide fusion with ICP-MS & OES finish.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Slimline Reverse circulation face sample bit
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Recovery of all samples was estimated visually
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Reverse circulation face sample bit ensured good recoveries throughout the drill program
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Acceptable overall sample recoveries throughout drill program no bias likely.

Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	All drill samples were logged by a qualified geologist and descriptions recorded in a digital data base.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Qualitative logging, representative sample retained for each drill metre
	The total length and percentage of the relevant intersections logged.	100%
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No core
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Rotary splitter for each 1m sample.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were analysed at SGS Laboratories in Perth, 2 kg was pulverised, and a representative subsample was analysed for lithium by sodium peroxide fusion with ICP-MS & OES finish.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	~200g of sample was pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	*Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	No duplicate samples were taken in the field.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Each sample was approximately 2kg in weight which is appropriate to test for the grain size of material sampled.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Samples were analysed at SGS Laboratories in Perth, 2 kg was pulverised, and a representative subsample was analysed for lithium by sodium peroxide fusion with ICP-MS & OES finish.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Semi-quantitative XRD analysis was used to determine the mineral species of lithium mineralised zones. The sample was supplied by the client to Microanalysis Australia for the above-mentioned analyses. A representative sub-sample was removed and lightly ground such that 90% was passing 20 µm. Grinding to this size helps eliminate preferred orientation. Only crystalline material present in the sample will give peaks in the XRD scan. Amorphous (non-crystalline) material will add to the background. The search match software used was Eva 4.3. An up-to-date ICDD card set was used. The X-ray source was cobalt radiation. No standards were used in the quantification process. The concentrations were calculated

		using the normalized reference intensity ratio method where the intensity of the 100% peak divided by the published I/Ic value for each mineral phase is summed and the relative percentages of each phase calculated based on the relative contribution to the sum. This method allows for slight attention to be paid to preferred orientation but is limited in considering other factors including but not limited to: variable crystallinity, alteration, fluorescence, substitution and lattice strain. Chemical assay data (XRF/ICP) was supplied by the client as an elemental relative abundance/concentration indicator. The XRD concentration of the interpreted phases (below) may have been adjusted in consideration of the chemical assay.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Blanks and certified reference material for lithium were included in the analytical batches and indicate acceptable levels of accuracy and precision. XRD analyses of 9 mineralised intervals confirms the high-grade lithium host mineral as petalite.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	At least 2 Zenith company personnel have been to the prospect area and observed samples and representative drill chip samples
	The use of twinned holes.	Nil
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Field data were all entered into a database
	Discuss any adjustment to assay data.	No adjustments were made.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Sample location is based on GPS coordinates +/-5m accuracy
	Specification of the grid system used.	The grid system used to compile data was MGA94 Zone 50
Location of data points – continued	*Quality and adequacy of topographic control.*	Topography control is +/- 10m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	RC holes drilled at nominal 50 x 50m spacing.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	There is insufficient information to calculate a mineral resource
	Whether sample compositing has been applied.	Simple weight average mathematical compositing applied

Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Drilling is angled at -60 degrees to the SW and W and is generally close to representing true width thickness of the gently NE dipping lithium mineralisation, unless otherwise stated in the text of this report, based on the current geological interpretation. Further drilling is required to confirm this interpretation.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No bias based on current interpretation of shallow dipping lithium mineralisation
Sample security	*The measures taken to ensure sample security.*	All samples were taken by Zenith personnel on site and retained in a secure location until delivered directly to the laboratory by Zenith personnel.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	The sampling techniques and data have been reviewed by two company personnel who are qualified as Competent Persons

Section 2 Reporting of Exploration Result

Criteria listed in the preceding section also apply to this section.

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	Waratah Well is composed of two tenement blocks held 100% by Zenith Minerals; E59/2170 and E59/2321. The project is located on the Gabyon pastoral lease and is subject to native title claims.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All tenements are 100% held by Zenith and are in good standing with no known impediment to future granting of a mining lease
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No previous lithium exploration in this area
Geology	*Deposit type, geological setting and style of mineralisation.*	Target is lithium hosted as the mineral spodumene in pegmatites, akin to deposits such as Greenbushes, Mt Marion, Wodgina and Pilgangoora all located in Western Australia
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	Drill collars are provided in Table 2 whilst significant lithium results are included in Table 1.
	o easting and northing of the drill hole collar	
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	o dip and azimuth of the hole	
	o down hole length and interception depth	
	o hole length.	

	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Simple arithmetic weight averaging with minimum cut-off grade of 0.3% Li_2O with a maximum of 4m internal dilution and high-grade reported at 1% Li_2O no internal dilution.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	As above and included in Tables
Data aggregation methods - continued	*The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents used
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Drilling is angled at -60 degrees to the SW and W and is generally close to representing true width thickness of the gently NE dipping lithium mineralisation, unless otherwise stated in the text of this report, based on the current geological interpretation. Further drilling is required to confirm this interpretation.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	As above
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Drilling is angled at -60 degrees to the SW and W and is generally close to representing true width thickness of the gently NE dipping lithium mineralisation, unless otherwise stated in the text of this report, based on the current geological interpretation. Further drilling is required to confirm this interpretation.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Refer to Figures 1 & 3 and Tables 1 - 2 and descriptions in body of text
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Refer to Figures 1 & 3 and Tables 1 - 2 and descriptions in body of text

Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	123 rock chip samples were collected in August 2024 and submitted to Jinning laboratory for Four-Acid digest ICP-MS analysis using their MADIM 48 technique. The purpose was to clearly define the NNE striking lithological contacts in the area, with particular attention to the mafic/komatiitic basalt contact. The results were in line with expectations and have enabled greater confidence in re-drawing contacts that were previously inferred from geophysics and limited existing geochemical data.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Additional deeper RC drilling, planned to test follow-up on the thick lithium pegmatite intersections from previous drilling in 2022.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to Figures 1 & 3